Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-6. (Canceled)

7. (Previously presented) A method to determine clinical outcome of a breast cancer afflicted subject, said method comprising assaying a sample of breast cancer cells from said subject for the ratio of HoxB13 and IL17BR expression levels.

8. (Previously presented) The method of claim 7 wherein said assaying comprises determination of the expression levels of HoxB13 and IL17BR.

9. (Original) The method of claim 7 wherein said subject is human.

10. (Previously presented) The method of claim 7 wherein said assaying for the expression levels of HoxB13 and IL17BR comprises detection of nucleic acids derived from a sample of breast cancer cells.

11. (Original) The method of claim 10 wherein said nucleic acids derived from said sample are prepared by mRNA amplification or quantitative PCR.

12. (Previously presented) The method of claim 7 wherein said assaying for the expression level of HoxB13 and IL17BR comprises detection of HoxB13 and IL17BR proteins.

13. (Original) The method of claim 12 wherein said detection of proteins comprises detection with antibodies which bind said proteins.

14. (Previously presented) A method of determining prognosis of a subject having ER+ breast cancer, or of a subject afflicted with ER+ breast cancer, said method comprising:

assaying a breast cancer cell sample from said subject for the ratio of HoxB13 and IL17BR expression levels.

15. (Previously presented) The method of claim 14 wherein said assaying comprises determination of the expression levels of HoxB13 and IL17BR.

16. (Original) The method of claim 14 wherein said subject is human.

17. (Previously presented) The method of claim 14 wherein said assaying for the expression levels of HoxB13 and IL17BR comprises detection of nucleic acids derived from said sample of ER+ breast cancer cells or detection of HoxB13 and IL17BR proteins.

18. (Original) The method of claim 17 wherein said nucleic acids derived from said sample are prepared by mRNA amplification or quantitative PCR.

19. (Original) The method of claim 17 wherein said detection of proteins comprises detection with antibodies which bind said proteins.

20. (Original) The method of claim 14 wherein said assaying comprises using an array.

21. (Original) The method of claim 14 wherein said sample is a ductal lavage or fine needle aspiration sample.

22. (Original) The method of claim 14 wherein said sample is a section of tissue from a subject or are cells microdissected from said section.

23. (Previously presented) A method to determine therapeutic treatment for an ER+ breast cancer patient based upon said patient's expected response to tamoxifen treatment, said method comprising

determining an expected response to tamoxifen treatment for said patient by assaying a sample of breast cancer cells from said patient for the ratio of HoxB13 and IL17BR expression levels; and

selecting the appropriate treatment for said patient.

24. (canceled)

25. (Original) The method of claim 23 wherein said subject is human.

26. (Previously presented) The method of claim 23 wherein said assaying comprises detection of nucleic acids derived from said sample of ER+ breast cancer cells or detection of IL17BR or HoxB13 proteins.

27. (Original) The method of claim 26 wherein said nucleic acids derived from said sample are prepared by mRNA amplification or quantitative PCR.

28. (Original) The method of claim 26 wherein said detection of proteins comprises detection with antibodies which bind said proteins.

29. (Original) The method of claim 23 wherein said assaying comprises using an array.

30. (Original) The method of claim 23 wherein said sample is a ductal lavage or fine needle aspiration sample.

31. (Original) The method of claim 23 wherein said sample is a section of tissue from a subject or are cells microdissected from said section.

32. (Previously presented) A method to determine clinical outcome of a human subject having breast cancer, said method comprising assaying a sample of breast cells from said subject for increased or decreased expression of IL17BR or increased expression of HoxB13.

33. (Original) The method of claim 32 wherein said sample is obtained by solid tissue biopsy or a non-invasive procedure, such as ductal lavage, fine needle aspiration, or a needle biopsy.

34. (canceled)

35. (Previously presented) The method of claim 32 wherein said assaying is by hybridization to a polynucleotide comprising sequences of at least 24 nucleotides from the 3' untranslated region, the coding region, or the 5' untranslated region, of human HoxB13 or IL17RB.

36. (Original) The method of claim 32 wherein said assaying comprises mRNA amplification or PCR amplification, such as quantitative PCR, of said sequences.

37. (Previously presented) The method of claim 32 wherein said assaying for increased or decreased expression of IL17BR or increased expression of HoxB13 comprises detection of IL17BR or HoxB13 polypeptides.

38. (Original) The method of claim 37 wherein said detection of polypeptides comprises detection with antibodies which bind said polypeptides.

39. (Previously presented) A method to determine clinical outcome of a human subject having ER+ breast cancer if treated with tamoxifen, said method comprising assaying a sample of breast cells from said subject for increased expression of human HOXB13 sequences or increased or decreased expression of IL17BR .

40. (Original) The method of claim 39 wherein said sample is obtained by solid tissue biopsy or a non-invasive procedure, such as ductal lavage, fine needle aspiration, or a needle biopsy.

41. (canceled)

42. (Previously presented) The method of claim 39 wherein said assaying is by hybridization to a polynucleotide comprising sequences of at least 24 nucleotides from the 3' untranslated region, the coding region, or the 5' untranslated region, of human HOXB13 or IL17BR.

43. (Original) The method of claim 39 wherein said assaying comprises mRNA amplification or PCR amplification, such as quantitative PCR, of said sequences.

44. (Currently amended) The method of claim 39 wherein said assaying is for methylation of HOXB13 or IL17BR nucleic acid sequences.

45. (canceled)

46. (Previously presented) The method of claim 39 wherein said assaying for increased HoxB13 expression or increased or decreased IL17BR expression comprises detection of IL17BR or HoxB13 polypeptides.

47. (Original) The method of claim 46 wherein said detection of polypeptides comprises detection with antibodies which bind said polypeptides.

48-53. (Canceled)

54. (Previously presented) The method of claim 7, wherein said assaying for expression of an IL17RB sequence is of a sequence selected from SEQ ID NOS: 1, 2, 3, or 8.

55. (Previously presented) The method of claim 32, wherein said assaying for expression of a HoxB13 sequence is of a sequence selected from SEQ ID NOS: 6, 7, 10 or 11-31.

56. (Previously presented) The method of claim 7 wherein said clinical outcome is breast cancer recurrence.

57. (canceled)

58. (Previously presented) The method of claim 7, wherein said assaying for expression of a HoxB13 sequence is of a sequence selected from SEQ ID NOS: 6, 7, 10 or 11-31.

59. (Previously presented) The method of claim 14, wherein said assaying for expression of a HoxB13 sequence is of a sequence selected from SEQ ID NOS: 6, 7, 10 or 11-31.

60. (Previously presented) The method of claim 14, wherein said assaying for expression of an IL17RB sequence is of a sequence selected from SEQ ID NOS: 1, 2, 3, or 8.

61. (Previously presented) The method of claim 23, wherein said assaying for expression of a HoxB13 sequence is of a sequence selected from SEQ ID NOS: 6, 7, 10 or 11-31.

62. (Previously presented) The method of claim 23, wherein said assaying for expression of an IL17RB sequence is of a sequence selected from SEQ ID NOS: 1, 2, 3, or 8.

63. (Previously presented) The method of claim 32 wherein said clinical outcome is breast cancer recurrence.

64. (canceled)

65. (Previously presented) The method of claim 32, wherein said assaying for expression of an IL17RB sequence is of a sequence selected from SEQ ID NOS: 1, 2, 3, or 8.

66. (Previously presented) The method of claim 39, wherein said assaying for expression of a HoxB13 sequence is of a sequence selected from SEQ ID NOS: 6, 7, 10 or 11-31.

67. (Previously presented) The method of claim 39, wherein said assaying for expression of an IL17RB sequence is of a sequence selected from SEQ ID NOS: 1, 2, 3, or 8.

68. (New) The method of claim 7 wherein said assaying comprises using an array.

69. (New) The method of claim 14 wherein said sample is a ductal lavage or fine needle aspiration sample.

70. (Currently amended) The method of claim 7 wherein said assaying comprises detecting methylation of HOXB13 or IL17BR nucleic acid sequences.

71. (Currently amended) The method of claim 14 wherein said assaying comprises detecting methylation of HOXB13 or IL17BR nucleic acid sequences.

72. (Currently amended) The method of claim 23 wherein said assaying comprises detecting methylation of HOXB13 or IL17BR nucleic acid sequences.

73. (Currently amended) The method of claim 32 wherein said assaying comprises detecting methylation of HOXB13 or IL17BR nucleic acid sequences.